

Anniversary

Pavel Hník, M.D., Ph.D., D.Sc.



Pavel Hník has celebrated his Eightieth Birthday on November 30, 2007.

He is an Emeritus Scientist at the Institute of Physiology at the Academy of Sciences and an Honorary Member of the Czech Physiological Society of J.E.Purkyně. He belonged to the first generation of postwar students and helped to revive Czechoslovak Physiology. His scientific contribution was oriented on neurophysiology, namely the pathogenesis of denervation muscle atrophy, neurotrophicity, homeostasis, pain and muscle hypertrophy.

Pavel was born in Náchod and his school education was acquired in Oxford where he arrived shortly with his family before the beginning of Second World War. From there he spent four years at St. Peter's School at York where he passed what was then the Oxford Cambridge Higher School Certificate in 1945. After the war he entered the Medical Faculty and graduated from Charles University in Prague in 1951. He spent one year in Jánské Lázně, a hospital specialized in rehabilitation of the chronic states of poliomyelitis, a frequent disease at that time in our country. There, he became deeply interested in the mechanisms of muscle atrophy and therefore, it was easy for professor E.

Gutmann to convince him to join the Institute of Physiology of the Czechoslovak Academy of Sciences in Prague to study the pathogenesis of muscle atrophies experimentally.

Next to prof. Gutmann, Pavel became interested in the mechanisms involved in the muscle atrophies after denervation and discovered that local pain in rats can produce an atrophy more pronounced than denervation itself. Several years later when the staff of the department had grown, it was necessary to split it into several laboratories that used different techniques aimed to understand neurotrophicity and the mechanisms of plasticity in the c.n.s. The frequently cited paper Beránek R. and Hník P.: Long-term effects of tenotomy on spinal monosynaptic response in the cat. *Science*, 1959; 130: 981, was the starting point for the new electrophysiological laboratory he founded together with R. Beránek and after his early death headed it for many years.

Pavel was a hardworker in science and an excellent leader of the group. He learned new electrophysiological experimental techniques on the spinal cord of rats with prof. Malcolm in Aberdeen (1965-66). Later he used his experience during his

sabbatical year in Salt Lake City (1969-70) as a visiting professor with prof. C. Eyzaguirre where he had the opportunity to learn the technique of making potassium selective microelectrodes suitable for neurophysiological research. After his return to Prague, he altruistically offered his knowledge including chemicals for preparing potassium selective microelectrodes to all colleagues around him, so that the first paper in which this technique was used, was published from the Institute of Physiology in Prague and this publication soon became a citation classic. This also initiated an international symposium on Ion selective microelectrodes that was organized in Prague (1981) of which Pavel was one of the organizers and co-editor of the proceedings.

He was one of the co-authors of „The Denervated Muscle“, which he translated into English. This was edited by E. Gutmann and was published in 1962. This was followed closely by an International Symposium on „The Effect of Use and Disuse on Neuromuscular Functions“ (edited by E. Gutmann and P. Hník) in 1963 and an International Symposium on „Ion-selective Microelectrodes and Their Use in Excitable Tissues“, edited by E. Syková, P. Hník and L. Vyklický, Plenum Press, New York and London 1981. In 1987 a Symposium was held on Mechanoreceptors (Development, Structure and Function, edited by P. Hník, T. Soukup, R. Vejsada and J. Zelená), Plenum Press, 1987). He also published two monographs:

- P. Hník: Muscle Atrophies (in Czech, with English Summary), State Med. Publ. House, Prague 1966.

- P. Hník, R. Vejsada, S. Kasicki: Electromyography in Chronic Animal Experiments, Publishing House of the Czech Academy of Sciences, 1988.

He was also the Honorary President of a Joint Meeting of the Czech and British Physiological Society which was held in 1998 in Prague. He was the initiator of this Meeting together with Prof. R. Rokyta and Prof. E. Syková.

In addition to research, Pavel has to be recognized as one of the founding members of the journal Physiological Research (formerly Physiologia Bohemoslovaca) in which he was for many years the Managing Editor responsible for its English. Many of us thank Pavel for his friendship and generous help during our first steps in learning how to do science.

Pavel retired in 1993 and became emeritus scientist of the Institute of Physiology, however, all the time he remains an active member of the staff responsible for editing this journal.

With best wishes and thanks to Pavel from us all!

October 28, 2007

L. Vyklický, sr.